PATENT
Docket No. 0369.101

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Daniela Buonamassi et al.

Serial No:	09/762,762	Group Art Unit: to be assigned
Filed:	February 13, 2001	Examiner: to be assigned
Title:	METHOD FOR PRODUCING YEAST EXPRESSED HPV TYPES 6 AND 16 CAPSID PROTEINS	

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56 AND §1.97(b)(3)

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

Applicants submit these documents in compliance with the duty of disclosure as defined in 37 C.F.R. §1.56 and §1.97(b)(3). The Examiner is requested to make these citations of official record in the present application.

Some of the references listed on the enclosed PTO 1449 form was cited in the International Search Report for International Application No. PCT/US99/18016 mailed February 28, 200, in a PCT application corresponding to the above-identified U.S. application. A copy of the Search Report, indicating the degree of relevance found by the foreign office, is enclosed herewith. Copies of the references are submitted herewith. The Examiner is requested to make the information of official record in the application.

The present Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits, and therefore, no certification under 37 C.F.R. §1.97(e) or fee under 37 C.F.R. §1.17(p) is required.

This Information Disclosure Statement under 37 C.F.R. §1.56 and §1.97(b)(3) is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these citations constitute prior art under 35 U.S.C. §102 or §103.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231,
on this 17 day of October, 2002.
By _____

The Commissioner is hereby authorized to charge any fees in connection with this Information Disclosure Statement to Deposit Account No. 03-1664.

Respectfully submitted,

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October 14, 2002

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U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES	Translation NO
	B1	02/22/96	WO 96/05293	PCT				
	B2	04/09/98	WO 98/14564	PCT				

OTHER DOCUMENTS *(including author, Date, Pertinent Pages, Etc.)*

Examiner Initials	Ref. No.	Title
	C1	Bonnez et al., "Propagation of Human Papillomavirus Type 11 in Human Xenografts Using the Severe Combined Immunodeficiency (SCID) Mouse and Comparison to the Nude Mouse Model", Virology, (1993) **197**:455-458
	C2	Bonnez et al., "Isolation and Propagation of Human Papillomavirus Type 16 in Human Xenografts Implanted in the Severe Combined Immunodeficiency Mouse", J. Virol., (June 1998) **72(6)**:5256-5261
	C3	Chan et al., "Phylogenetic Analysis of 48 Papillomavirus Types and 28 Subtypes and Variants: A Showcase for the Molecular Evolution of DNA Viruses", J. Virol., (Oct. 1992) **66(10)**:5714-5725
	C4	Chang et al., "Phenotypic Mixing Between Different Hepadnavirus Nucleocapsid Proteins Reveals C Protein Dimerization To Be Cis Preferential", J. Virol., (Aug. 1994) **68(8)**:5225-5231
	C5	Christensen et al., "Antibody-Mediated Neutralization In Vivo of Infectious Papillomaviruses", J. Virol., (July 1990) **64(7)**:3151-3156
	C6	Christensen et al., "Monoclonal Antibody-Mediated Neutralization of Infectious Human Papillomavirus Type 11", (1990) **64(11)**:5678-5681
	C7	Christensen et al., "Human Papillomavirus Types 6 and 11 Have Antigenically Distinct Strongly Immunogenic Conformationally Dependent Neutralizing Epitopes", Virology, (1994) **205**:329-335

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	C8	Christensen et al., "Monoclonal Antibodies to HPV-6 L1 Virus-like Particles Identify Conformational and Linear Neutralizing Epitopes on HPV-11 in Addition to Type-Specific Epitopes on HPV-6", Virology, (1996) **224**:477-486
	C9	Christensen et al., "Surface Conformational and Linear Epitopes on HPV-16 and HPV-18 L1 Virus-like Particles as Defined by Monoclonal Antibodies", Virology, (1996) **223**:174-184
	C10	Deminie et al., "Incorporation of Human Immunodeficiency Virus Type 1 Gag Proteins into Mufine Leukemia Virus Virions", J. Virol., (1993) **67(11)**:6499-6506
	C11	Doorbar et al., "Identification of Proteins Encoded by the L1 and L2 Open Reading Frames of Human Papillomavirus 1A", J. Virol., (Sept.1987) **61(9)**:2793-2799
	C12	Firzlaff et al., "Detection of Human Papillomavirus Capsid Antigens in Various Squamous Epithelial Lesions Using Antibodies Directed Against the L1 and L2 Open Reading Frames", Virology, **164**:467-477
	C13	Franke et al., "Specificity and Sequence Requirements for Interactions Between Various Retroviral Gag Proteins", J. Virol., (Aug. 1994) **68(8)**:5300-5305
	C14	Greer et al., "Human Papillomavirus (HPV) Type Distribution and Serological Response to HPV Type 6 Virus-Like Particles in Patients with Genital Warts" (Aug. 1995) J. Clinical Microbiology 33(8):2058-2063
	C15	Hagensee et al., "Self-Assembly of Human Papillomavirus Type 1 Capsids by Expression of L1 Protein Alone or by CoExpression of the L1 and L2 Capsid Proteins", J. Virol., (Jan. 1993) **67(1)**:315-322
	C16	Hagensee et al., "Three-Dimensional Structure of Vaccinia Virus-Produced Human Papillo mavirus Type 1 Capsids", J. of Virol., (July 1994) **68(7)**:4503-4505
	C17	Hines et al., "The Expression and Processing of Human Beta-Amyloid Peptide Precursors in *Saccharomyces Cerevisae*: Evidence for a Novel Endopeptidase in the Yeast Secretory System", Cell. Mol. Biol. Res., (1994) **40(4)**:273-284
	C18	Hofmann et al., "Sequence Determination of Human Papillomavirus 6A and Assembly of Virus-like Particles in *Saccharomyces Cerevisae*", Virology, (1995) **209**:506-518
	C19	Hofmann et al., "Sequence Conservation Within the Major Capsid Protein of Human Papillomavirus (HPV) Type 18 and Formation of HPV-18 Virus-like Particles in *Saccharomyces Cerevisiae*", J. Gen. Virol., (1996) **77**:465-468
	C20	Jansen et al., "Vaccination with Yeast-Expressed Cottontail Rabbit Papillomavirus (CRPV) Virus-like Particles Protects Rabbits from CRPV-Induced Papilloma Formation", Vaccine, (1995) **13(16)**:1509-1514
	C21	Kirnbauer et al., "Papillomavirus L1 Major Capsid Protein Self-Assembles Into Virus-like Particles That Are Highly Immunogenic", Proc. Natl. Acad. Sci. USA, (1992) **89**:12180-12184

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	C22	Kirnbauer et al., "Efficient Self-Assembly of Human Papillomavirus Type 16 L1 and L1-L2 Into Virus-like Particles", J. Virol., (1993) **67(12)**:6929-6936
	C23	Kirnbauer et al., "Virus-Like Particles of Bovine Papillomavirus Type 4 In Prophylactic and Therapeutic Immunization", Virology, (1996) **219**:37-44
	C24	Kreider et al., "Laboratory Production In Vivo of Infectious Human Papillomavirus Type 11", (1 J. Virol., (Feb. 1987) **61(2)**:590-593
	C25	Li et al., "Expression of the Human Papillomavirus Type 11 L1 Capsid Protein in Escherichia Coli: Characterization of Protein Domains Involved in DNA Binding and Capsid Assembly", J. Virol., (April 1997) **71(4)**:2988-2995
	C26	Li et al., "Intercapsomeric Disulfide Bonds in Papillomavirus Assembly and Disassembly", J. Virol., (Mar.1998) **72(3)**:2160-2167
	C27	Lowe et al., "Human Papillomavirus Type 11 (HPV-11) Neutralizing Antibodies in the Serum and Genital Mucosal Secretions of African Green Monkeys Immunized with HPV-11 Virus-like Particles Expressed in Yeast", J. Infect. Dis., (1997) **176**:1141-1145
	C28	Muller et al., "Papillomavirus Capsid Binding and Uptake by Cells from Different Tissues and Species", J. Virol., (Feb. 1995) **69(2)**:948-954
	C29	Neeper et al., "Expression of the Major Capsid Protein of Human Papillomavirus Type 11 in *Saccharomyces Cerevisae*", Gene, (1996) **180**:1-6
	C30	Ott et al., "Design and Evaluation of a Safe and Potent Adjuvant for Human Vaccines (1995) in M.F. Powell and M. J. Newman (ed.), Vaccine Design., The subunit and adjuvant approach. (1995) 277-296 Plenum Press, New York, N.Y.
	C31	Qi et al., "Epithelial Cells Display Separate Receptors for Papillomavirus VLPs and for Soluble L1 Capsid Protein", Virology, (1996) **216**:35-45
	C32	Roden et al., "Neutralization of Bovine Papillomavirus by Antibodies to L1 and L2 Capsid Proteins", J. Virol., (Nov. 1997) **68(11)**:7570-7574
	C33	Roden et al., "Interaction of Papillomaviruses with the Cell Surface", J. Virol., (Nov. 1994) **68(11)**:7260-7266
	C34	Roden et al., "In Vitro Generation and Type-Specific Neutralization of a Human Papillomavirus Type 16 Virion Pseudotype", J. Virol., (Sept. 1996) **70(9)**:5875-5883
	C35	Roden et al., "Assessment of Serological Relatedness of Genital Human Papillomaviruses by Hemagglutination Inhibition", J. Virol., (May 1996) **70(5)**:3298-3301
	C36	Rose et al., "Serological Differentiation of Human Papillomavirus Types 11, 16, and 18 Using Recombinant Virus-Like Particles", J. Gen. Virol., (1994) **75**:2445-2449
	C37	Rose et al., "Expression of Human Papillomavirus Type 11 L1 Protein in Insect Cells: In Vivo

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		and In Vitro Assembly of Virus-like Particles", J. Virol., (April 1993) **67(4)**:1936-1944
	C38	Sapp et al., "Organization of the Major and Minor Capsid Proteins in Human Papillomavirus Type 33 Virus-like Particles", J. Gen.Virol., **76:** 2407-2412
	C39	Sapp et al., "Papillomavirus Assembly Requires Trimerization of the Major Capsid Protein by Disulfides Between Two Highly Conserved Cysteines", J. Virol., (July 1998) **72 (7)**:6186-6189
	C40	Smith et al., "Titration of HPV-11 Infectivity and Antibody Neutralization Can Be Measured In Vitro.", (1995) J. Invest. Dermatol. **105**(3):438-444
	C41	Suzich et al., "Systemic Immunization With Papillomavirus L1 Protein Completely Prevents the Development of Viral Mucosal Papillomas", Proc. Natl. Acad. Sci. USA, (Dec. 1995) **92**:1553-1557
	C42	Touze et al., "Production of Recombinant Virus-like Particles From Human Papillomavirus Types 6 and 11, and Study of Serological Reactivities Between HPV 6, 11, 16, and 45 by ELISA: Implications for Papillomavirus Prevention and Detection", FEMS Microbiol., (1998) **160**:111-118
	C43	Travis et al., "Isolation and Properties of Recombinant DNA Produced Variants of Human α_1-Proteinase Inhibitor", J of. Biol.Chem., (1985) **260(7)**:4384-4389
	C44	Unckell et al., "Generation and Neutralization of Pseudovirions of Human Papillomavirus Type 33", J. Virol., (Apr. 1997) **71(4)**:2934-2939
	C45	Van Ranst et al., "Phylogenetic Classification of Human Papillomaviruses: Correlation With Clinical Manifestations", J. Gen. Virol., (1992) **73**:2653-2660
	C46	Volpers et al., "Assembly of the Major and the Minor Capsid Protein of Human Papillomavirus Type 33 into Virus-like Particles and Tubular Structures in Insect Cells",Virology, (1994) **200**:504-512
	C47	Volpers et al., "Binding and Internalization of Human Papillomavirus Type 33 Virus-like Particles by Eukaryotic Cells", J. Virol., (June 1995) **69(6)**:3258-3264
	C48	White et al., "In Vitro Infection of Type-Restricted Antibody-Mediated Neutralization of Authentic Human Papillomavirus Type 16", J. Virol. (Feb. 1998) **72(2)**:959-964
	C49	Zaret et al., "α-Aminoadipate as a Primary Nitrogen Source for *Saccharomyces Cerevisiae* Mutants", J. Bacteriol., (May 1985) **162(2)**:579-583
	C50	Zavada et al., "The Pseudotypic Paradox", J. Gen.Virol., (1982) **63**:15-24
	C51	Zhou et al., "Synthesis and Assembly of Infectious Bovine Papillomavirus Particles In Vitro", J. Gen. Virol., (1993) **74**:763-768
	C52	Zimmerman et al., "Procedures Used in the Induction of Mitotic Recombination and Mutation in the Yeast *Saccharomyces Cerevisiae*", Mutat. Res., (1975) **31**:71-86

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